

ABSTRACT

A conductive ball is formed by coating a generally spherical-shaped core made of a non-metallic material with a coating layer composed of a Cu layer and an Sn-5.5Ag alloy layer of non-eutectic composition. The conductive ball is disposed on a land of an electronic component via flux and reflowed at heating temperatures whose peak temperatures reach 250 to 260 °C. The Sn-5.5Ag alloy of non-eutectic composition is put in the state in which a solidus portion and a liquidus portion coexist to keep flowability relatively small. The conductive ball is fixed on the land without exposing an SnCu layer formed on the Cu layer. An electrode is formed without exposing the SnCu layer having relatively poor solder wettability. Between the electronic component and a circuit board, a joint section having a good electric conduction property and mechanical strength may be formed.